MEETING AGENDA AND ACTION ITEMS
Hanford Site Technology Coordination Group
Management Council

December 17, 1997
EESB Snoqualmie Room
8:30 a.m. to 12:30 p.m.

Purpose

- To review FY97 demonstration/deployment activities
- To focus more attention on deployment

Agenda

Introduction/Safety/Continuous Performance Improvement

Updates
-- TDI - Technology Deployment Plan
-- Upcoming Technology Tours
-- Global D&D Marketplace Symposium
-- 200-Area Canyon Disposition Initiative
-- Pilot Program for Technology Verification

Laser Demo Case Study

Future Agenda Items

Deployment Center Annual Report

FY 1997 Demonstration/Deployment Accomplishments

Action Items

- MC Members send comments on the Draft STCG Annual Plan to Dave Biancosino by the second week of January.

- MC Members return tour questionnaires to Greg Berlin.

- MC Members send back input on other agenda items they want to see covered.

HANFORD SITE TECHNOLOGY COORDINATION GROUP
MANAGEMENT COUNCIL MEETING MINUTES

December 17, 1997
EESB, Snoqualmie Room
8:30 a.m. to 12:30 p.m.

INTRODUCTION/SAFETY/CONTINUOUS PERFORMANCE IMPROVEMENT

Lloyd Piper opened the meeting and introductions were made around the room.

Safety: Norm Olson reminded everyone to take the time to clean fog, ice, and snow off car windows to improve visibility.

CPI: Paul Scott commented on the value of conflict and dissenting opinions. We should value the person who comes to us with a different opinion, since it helps to clarify our position on an issue.

The STCG Management Council focused on technology deployment at this meeting. There is a funding gap at Hanford, with insufficient funds to cover all the activities required for regulatory compliance. Therefore, becoming more efficient is extremely important. Lloyd asked the Subgroups to review project baselines and identify potential technologies that could save at least $25M in FY 1999. He will be looking for baseline change requests to include some of these technologies to reduce costs.

An important challenge is to form stronger links between technology development, demonstration, and deployment. EM-50 funding for technology development and deployment should have much stronger links to deployment. We need to identify a link into the baseline which will allow us to deploy a technology. C-Reactor was given as a good example of what can be done; some of the 20 technologies that were demonstrated will now be deployed.

A DOE press release was handed out about “the leak that’s not a leak.” Single-shell tank SX-104 was assumed to be a leaker. However, recent data collected indicates that atmospheric pressures make the levels fluctuate. Monitoring of the tank’s liquid levels will continue to ensure that this interpretation is correct.

The draft STCG Annual Report was given to MC members. They were asked to review it and send any comments to Dave Biancosino by the second week of January so it can be finalized by the next meeting on January 21.

Dave Biancosino presented the purpose of the meeting and reviewed the agenda.

UPDATES

TDI -- Technology Deployment Plan

The deployment plan was issued in November 1997 for the only Hanford TDI proposal that was funded (Slurry Monitoring). Eric Daymo (PNNL) presented an update on planned activities for the transfer line between tanks C-106 and AY-102.

TWRS will deploy three new slurry monitors in the line:

- Lasentec(TM) particle size analyzer
- Ultrasonic densimeter
- Red Valve (TM) pressure sensor.

The Sr-90 monitor was removed from the proposal, and deployment of the Lasentec monitor at Oak Ridge was added. It will result in cost savings at both sites.

The project schedule is a follows:

FY 1998 -	Deploy Lasentec at Oak Ridge ($233K)
FY 1999 -	Deploy ultrasonic densimeter, Red Valve pressure sensor, and Lasentec for HTI (C-106 retrieval) ($412K)

Lloyd Piper asked if the Lasentec instrument is intrusive into the pipe. The answer is yes.

John Murphy asked what FY99 dollars will be allocated. The answer was that the funding will come from TDI (EM-50).

Cathy Louie asked who in the PHMC is leading this effort. Jim Hanson is the RL lead; Paul Scott is the PHMC lead; Bill Root is the program manager for HTI; Dirk Van Huesen is the project manager at Oak Ridge.

Upcoming Technology Tours

Greg Berlin gave an update on the technology tours now being scheduled in conjunction with the STCG Management Council meetings. The proposed December tour was postponed. Greg passed out the following schedule of planned tours:

January 21	222-S Hot Cell Area - Characterization Technologies
February 18	Tank Corrosion Sensor in Tank AN-107 (Jim Nelson)
March 18	WRAP Facility
April 15	ALARA Facility (Larry Wagner)

The typical itinerary would be to leave EESB at 12:30 p.m., go to the Central Badging office, drive to the Area, tour for 1.5 hours, and return to EESB by 4:30 p.m.

A poll was taken, and everyone has a badge. Dosimeters will be required for some tours, and we can take care of that on the tour day. Some radiation worker training may be required, especially to get into the 200-East or 200-West Areas.

Greg passed out a brief questionnaire to be filled out during the meeting or returned to him by the first week of January. We will use that information to plan the tours and any required training or badging. We will need confirmation from members who want to attend the tour a week or so prior to the tour.

Cathy Louie requested that we have both the contractor and DOE project managers available to answer any questions. Dave Biancosino said that we will do that.

Global D&D Marketplace Symposium

Jim Goodenough gave an update on this symposium, which was attended by a group of people from Hanford.

Gerald Boyd gave a briefing at the opening session and challenged the participants to learn something from the symposium and take it back to the site to make a difference. The Hanford participants are writing up summaries of what they learned to share with the D&D Subgroup in January. They will brainstorm what changes could be made.

Dave Langstaff, representing the EM-60 Program at the symposium, said that they were overwhelmed by the number of technologies discussed. Customers want to manage technology risks, so they are looking for demonstrated technologies. The key to future technology deployment is identifying and incorporating customer needs into the technology development process.

Wayne Martin asked if they saw any technologies that looked promising. Dave answered that the pipe cleaning technology looked good, and he brought back a video. Also, the Oxy Gas cutting torch sold eight units at the symposium. Jerry White was able to showcase some of the work we have been doing at Hanford.

200-Area Canyon Disposition Initiative

Jerry White provided an update on the Canyon Disposition Initiative. There are five highly contaminated, difficult-to-deal-with chemical fuel processing canyons on the Hanford Site. This initiative is targeted at determining the right way to disposition them in the 2000-2001 time frame. A range of alternatives will be considered, from full disposition to use as waste disposal facilities. EM-40 has been working with EM-50 for some time, discussing use of new technologies for characterization. There is final agreement that the D&D Focus Area will provide $500K in FY98 and the Robotics

Crosscut Program will provide $800K in FY98 and maybe up to $3M the next year. There are two caveats: 1) They believe the canyons affect all programs, and they want to utilize all the expertise in all the programs. 2) They require some matching funds to do the work, and EM-40 is working on that.

The schedule calls for starting characterization of the process cells this year, and completion of the performance assessment in the year 2000. Hanford is asking Idaho and Savannah River to team with us.

Pilot Program for Technology Verification

Nancy Uziemblo stated that Washington State House Bill 1792 provides a pilot program to see if technology verification will help us deploy technologies faster. Michael Jacobsen, who is working with the environmental industry and EM-50 to help commercialize technologies, will put together some of the detailed information to see how EM-50 could take advantage of this program. Will Kirksey (Civil Engineering Research Lab) presented what they are doing to help the Washington Department of Ecology, working specifically on Hanford needs. Their emphasis is on improving the baseline, not just certifying technologies.

Bob Rosselli asked if there is a relationship between the verification process and Records of Decision (RODs). The answer was that we haven't gotten that far yet, but that is good long-term thinking. The bottom line is that this program will make it easier to deploy technologies.

Al Alm Memo

Debbie Trader distributed a follow-up memo to Al Alm's ten-point memo sent out to the field earlier. His view is that the overall rate of deployment of technologies is disappointing. The performance measures being tracked are the number of technologies deployed and their associated life-cycle cost savings. The minimum target for Hanford for FY98 is to deploy 16 technologies and achieve $6B in cost savings.

By May 1, 1998, each site must have a completed Deployment Management Plan, with processes revisited, performance agreements renegotiated, etc.

Implementation is defined as the single use of a technology, and deployment is defined as multiple use of a technology.

Dirk Dunning mentioned that the deployment goals appear to come from the Contractor Integration Report. The life-cycle cost analysis is extremely poor.

Mike Jacobsen noted that the memo says 160 Complex needs are being met, and asked if there is consensus that this number is correct. Debbie answered yes; these needs are being met with the ongoing technology development program.

LASER DEMO CASE STUDY

Shannon Saget introduced the discussion by noting that the laser demo was the first technology proposal to be endorsed by the D&D Subgroup. The ingredients for a successful demonstration include: an identified need, user commitment, and close integration with the project scope, schedule, and budget. When this project was started, all of these components were there.

Wayne Green stated that due to a very unusual set of circumstances listed below, there was a lot of difficulty managing this project.

- Significant impacts to laser project
  - -- Major time delay due to change in user (transition from PNNL to B&W)
  - -- Scope of work not tied to project

- Unforeseen events/setbacks
  - -- Change of vendor
  - -- Delayed installation of crane

- Status
  - -- Development work and documentation complete
  - -- Cold demonstration complete
  - -- Laser purchased to support D&D project needs

Rick Milliken (B&W) described the 324 B-Cell Cleanout Project, covering the process racks, melter, and other process equipment/vessels in the cell. About 1.5 million curies were spilled to the floor in past operations. Rick noted the following:

- The B-Cell Project is in year 10 of an 11-year cleanout schedule

- Continued support of laser “demonstrations” versus actual laser size reduction was not pursued due to:
  - -- Difficulties with the remaining critical path schedule
  - -- Laser not ready for production

- Data did not exist to show that, if the equipment problems were corrected, the laser would operate in a hot cell

- B-Cell is still in need of proven and available size-reduction technology

Jim Buelt (PNNL) stated that the original project objectives were to:

- Demonstrate the ability to cut materials in a remote environment
- Demonstrate the capability, performance rate, and life-span in a high-radiation, remote environment

The major technical hurdles included:

- Adaptation of the laser for remote, manipulator-controlled cutting
- Reliability, operability, and long-term performance in a high-radiation environments

The project experienced the following setbacks:

- Difficulties in obtaining the laser and the laser chiller
- Facility transition
- Damage to cables during six-ton crane cutting
- Delayed installation of B-Cell crane

Jim then summarized the following accomplishments: the tests were conducted, cutting performance was demonstrated, reliability under remote radiation environments was verified, and documentation was provided.

Robin Duncan (B&W) discussed the path forward for laser deployment and provided the following lessons learned:

- The laser was proven to be deployable utilizing a Master Slave Manipulator
- To improve future projects' success:
  -- Ensure up-front end user participation in developing project scope
  -- Understand end user needs and expectations
  -- Establish and maintain continuity of communications
  -- Be proactive in responding to events

Recommendations:

- Identify opportunities for laser deployment across both Hanford and the DOE Complex

- Identify funding to support laser deployment

- Request STCG Management Council partnership and support for full-scale laser deployment.

Rick Gonzales stated that this was a good presentation. It is important to address all the safety issues. The project was overly ambitious. The safety aspects were the things that slowed it down. He does not think that $250K is enough to deploy the laser.

Dirk Dunning noted that it looks like there was a breach in contract when the purchase of the laser fell through, and asked if DOE asked for damages. The answer was that the contract was not actually in place when the vendor went out of business; it was within a week of being signed.

Dirk asked what coolant was used and why it was a problem. The coolant was water, because it was difficult finding a coolant within the project budget.

Dirk asked if the system will detect failure of the fiber. The answer was yes. He then asked why the cable wasn't shielded. The answer was that there wasn't time because of the window of opportunity to get the laser in use right away. He asked what the source of the fire was. The answer was that slag had come off, landed on plastic, and melted through the continuity wire. They wrapped the cable and were using the laser again in two days.

Lloyd Piper said that if we are going to use new technologies with greater risk, we need to be able to take risks without all the usual penalties. Rick Milliken stated that risk in this environment is high and requires significant planning. That was lacking in this case; finding funds to do the proper planning was the problem. Risk management is a matter of how you manage risk and being rigorous about it. You should look at other contractors' methods in place to do that. Robin noted that with the change of contractors, the acceptance of risk changed from one to the other.

Jerry White noted that Lloyd is correct about the risk issues. If we go back a few years, the programs had sufficient funding to do some of the testing and other up-front work. With funding crunches, there is no flexibility to do these things. BHI is very interested in this technology and would like to get together with B&W to discuss opportunities.

Cathy Louie suggested that if we go forward with laser work, we should build a video library of it.

FUTURE AGENDA ITEMS

Deployment Center Annual Report (30 min.)

FY 1997 Demonstration/Deployment Accomplishments (90 min.)

TDI -- New Call for Proposals

Update on ITRD Groundwater Work (if there's time)

Have a few minutes each month for the communications person to identify the "outreach" point of the month

DEPLOYMENT CENTER ANNUAL REPORT

Debbie Trader presented an overview of the Hanford Technology Deployment Center (HTDC). The concept was developed in FY96 (prior to the award of the PHMC contract) in response to Hanford Summit I and II recommendations. The previous program plan covered the "how" of technology deployment rather than the "what", focusing on enhanced regulatory and procurement processes. The current philosophy is that DOE owns the HTDC and determines what needs to be done; the PHMC will determine how to do it.

The HTDC points-of-contact are:

FDH	Terry Walton
BHI	Jerry White
PNNL	Tom Page
DOE	Dave Biancosino

Mission:
The HTDC will, through active partnerships, enhance the effectiveness of Site environmental cleanup by:

- Facilitating deployment of alternative technologies and processes identified in response to project needs
- Fostering the movement of technologies from demonstration to deployment to commercialization in support of community and regional economic stability

Goals:

- Increase visibility for technology deployment
- Provide a single point-of-contact
- Get technologies demonstrated and deployed
- Foster communication back to the sites

Organization:

FDH -- Site Cleanup
BHI -- Environmental Restoration
PNNL -- Research and Development

Wayne Martin noted that calculating defensible cost savings estimates is a major issue. They must be done consistently across the Site. FDH maintains the Hanford baseline, so they need to develop a system to calculate cost savings across their subcontractors. BHI has their own system, which will be consistent throughout BHI.

Mike Jacobsen noted that one goal for the HTDC is to provide a single point-of-contact. It looks like the organization presented creates four points of contact, but the single point of contact will be Dave Biancosino. He will forward requests to the appropriate contractor. Mike than asked if there is a new HTDC brochure to distribute. Debbie said that the brochure has not been updated yet.

Dirk Dunning said that regarding life-cycle cost savings, there is a strong emphasis on measuring capital cost, not less tangible things like the value of lost land. Life-cycle costs should include all costs.

Due to insufficient time to adequately discuss the issues, the contractor presentations were postponed until January.

FY 1997 DEMONSTRATION/DEPLOYMENT ACCOMPLISHMENTS

This agenda item was also postponed until January.

STATUS OF SALT LAKE CITY WORKOUT ACTION TEAM

Tom Anderson presented an update on the recent actions of this team.

A number of cost efficiencies were agreed to at the Salt Lake City meeting:

- early savings
- process improvements -- 7 items
- long-term improvements -- 5 items
- “Turn technology development and deployment into a clear success. Promote focused technology development and deployment.”

The SLC Workout Action Team membership includes the following:

FDH - Champion (Tom Anderson, Lead)
RL/AMT

MSC-5 (5 major subcontractors)
BHI
PNNL
EPA
Ecology
Tribal Nations

What's been happening:

- Kick off meeting on September 5 -- 31 participants
  -- Started with 4 approaches

- After 4 meetings, working groups (WGs) formed around 8 courses of action

- Drafted action plans
  -- Where we want to be
  -- Current assessment
  -- Actions to bridge the gap/success measures

- WG brainstorming and writing sessions

- Meetings of WG leads to integrate thinking

- Separate WG sessions

- Written input due 12/19

- Edit collected works/issue draft report 1/2/98

- Review and comment by Action Team/STCG

- Issue penultimate draft in February 1998

The eight areas being addressed by the WGs are:

Improved Technology/Science Needs List
Identify and Advertise Success
Technology-Use Incentives
What Doesn't Work -- Barriers
Supplier Incentives
Federal Budgeting Process
Risk Aversion
Positioning for Success

In January, STCG members will receive the draft report for review.

Jerry White mentioned that some of this information will feed the request by Al Alm for a Science and Technology Plan.

Mike Jacobsen requested that the team talk about the specificity of some of these items.
Tom responded that the intention is that the action plan will be specific.

WRAP-UP

The next meeting is scheduled for January 21, from 8:30 a.m. to 12:30 p.m., in the EESB Snoqualmie Room.